CLAIMS

What is claimed is:

1. An organic electroluminescent device comprising:

a transparent substrate;

a semi-transparent layer formed on the transparent substrate;

a first anode layer formed on the semi-transparent layer as a predetermined pattern;

a cathode layer formed of a metallic total reflection layer on the first anode layer; and

an organic layer formed between the first anode layer and the cathode layer, which includes at least an emitting layer,

wherein an optical distance between a top surface of the semi-transparent layer and a bottom of the cathode layer is determined to be a least integer multiple of half the peak wavelengths of light of a predetermined set of colors.

2. The organic electroluminescent device of claim 1, wherein the optical distance between the top surface of the semi-transparent layer and the bottom of the cathode layer is a sum of products of refractive indices and thicknesses of the respective first anode layer and the organic layer.

3. The organic electroluminescent device of claim 1, further comprising a transparent spacer layer between the semi-transparent layer and the first anode layer.

4. The organic electroluminescent device of claim 3, wherein the optical distance between the top surface of the semi-transparent layer and the bottom of the cathode layer is a sum of products of refractive indices and thicknesses of the respective transparent spacer layer, the first anode layer, and the organic layer.

5. The organic electroluminescent device of claim 1, further comprising a second anode layer between the transparent substrate and the semi-transparent layer.

6. The organic electroluminescent device of claim 5, wherein the optical distance between the top surface of the semi-transparent layer and the bottom of the cathode layer is a sum of products of refractive indices and thicknesses of the respective first anode layer and the organic layer.

7. The organic electroluminescent device of claim 1, further comprising a metal oxide layer deposited on the top surface of the transparent substrate.

8. The organic electroluminescent device of claim 3, further comprising a metal oxide layer deposited on the top surface of the transparent substrate.

9. The organic electroluminescent device of claim 5, further comprising a metal oxide layer deposited on the top surface of the transparent substrate.

10. The organic electroluminescent device of claim 7, wherein the metal oxide layer is one selected from the group consisting of a SiO_2 layer, a TiO_2 layer, a Y_2O_3 layer, and a Nb_2O_5 layer.

11. The organic electroluminescent device of claim 8, wherein the metal oxide layer is one selected from the group consisting of a SiO_2 layer, a TiO_2 layer, a Y_2O_3 layer, and a Nb_2O_5 layer.

12. The organic electroluminescent device of claim 9, wherein the metal oxide layer is one selected from the group consisting of a SiO_2 layer, a TiO_2 layer, a Y_2O_3 layer, and a Nb_2O_5 layer.

13. The organic electroluminescent device of claim 1, wherein the transparent substrate is a glass substrate.

14. The organic electroluminescent device of claim 1, wherein the semi-transparent layer is a thin metal layer.

15. The organic electroluminescent device of claim 14, wherein the thin metal layer is formed of one of silver and aluminum.

16. The organic electroluminescent device of claim 14, wherein the thin metal layer is formed of one of a silver-copper-gold alloy and a silver-palladium-copper alloy.

17. The organic electroluminescent device of claim 1, wherein the first anode layer and the organic layer are formed as a stripe pattern, and the cathode layer is formed as a stripe pattern perpendicular to the stripe pattern of the first anode layer and the organic layer.

18. The organic electroluminescent device of claim 1, wherein the first anode layer is formed as a stripe pattern, and the organic layer and the cathode layer are formed as a stripe pattern perpendicular to the stripe pattern of the first anode layer.

19. The organic electroluminescent device of claim 1, wherein the semi-transparent layer, the first anode layer, and the organic layer are formed as a stripe pattern, and the cathode layer is formed as a stripe pattern perpendicular to the stripe pattern of the semi-transparent layer, the first anode layer, and the organic layer.

20. The organic electroluminescent device of claim 1, wherein the semi-transparent layer and the first anode layer are formed as a stripe pattern, and the organic layer and the cathode layer are formed as a stripe pattern perpendicular to the stripe pattern of the semi-transparent layer and the first anode layer.

21. The organic electroluminescent device of claim 3, wherein the semi-transparent layer, the transparent spacer layer, the first anode layer, and the organic layer are formed as a stripe pattern, and the cathode layer is formed as a stripe pattern perpendicular to the stripe pattern of the semi-transparent layer, the transparent spacer layer, the first anode layer, and the organic layer.

22. The organic electroluminescent device of claim 3, wherein the semi-transparent layer, the transparent spacer layer, and the first anode layer are formed as a stripe pattern, and the organic layer and the cathode layer are formed as a stripe pattern perpendicular to the stripe pattern of the semi-transparent layer, the transparent spacer layer, and the first anode layer.

23. The organic electroluminescent device of claim 5, wherein the second anode layer, the semi-transparent layer, the first anode layer, and the organic layer are formed as a stripe pattern, and the cathode layer is formed as a stripe pattern perpendicular to the stripe pattern of the second anode layer, the semi-transparent layer, the first anode layer, and the organic layer.

24. The organic electroluminescent device of claim 5, wherein the second anode layer, the semi-transparent layer, and the first anode layer are formed as a stripe pattern, and the organic layer and the cathode layer are formed as a stripe pattern perpendicular to the stripe pattern of the second anode layer, the semi-transparent layer, and the first anode layer.